

# CONCOMITANT USE OF PROTON PUMP INHIBITORS AND ABEMACICLIB, PALBOCICLIB AND RIBOCICLIB IN BREAST CANCER

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## Background and Importance

The impact of concomitant use of proton pump inhibitors (PPIs) and cyclin-dependent kinase 4/6 inhibitors (CDK4/6 inhibitors) has shown contradictory results in the literature.

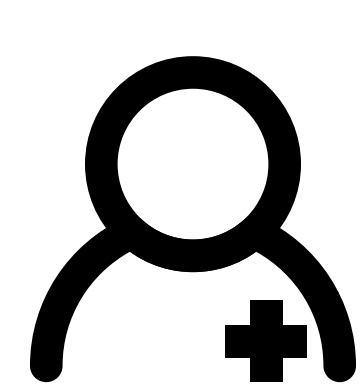
## Aim and objectives

To evaluate the effect of concomitant PPI use (with PPI [cPPI] and without PPI [sPPI]) on the effectiveness of CDK4/6 inhibitors (abemaciclib [ABE], ribociclib [RIB], and palbociclib [PAL]) in patients with metastatic breast cancer (MBC), hormone receptor-positive (HR+) and HER-2 negative.

## Materials and Methods

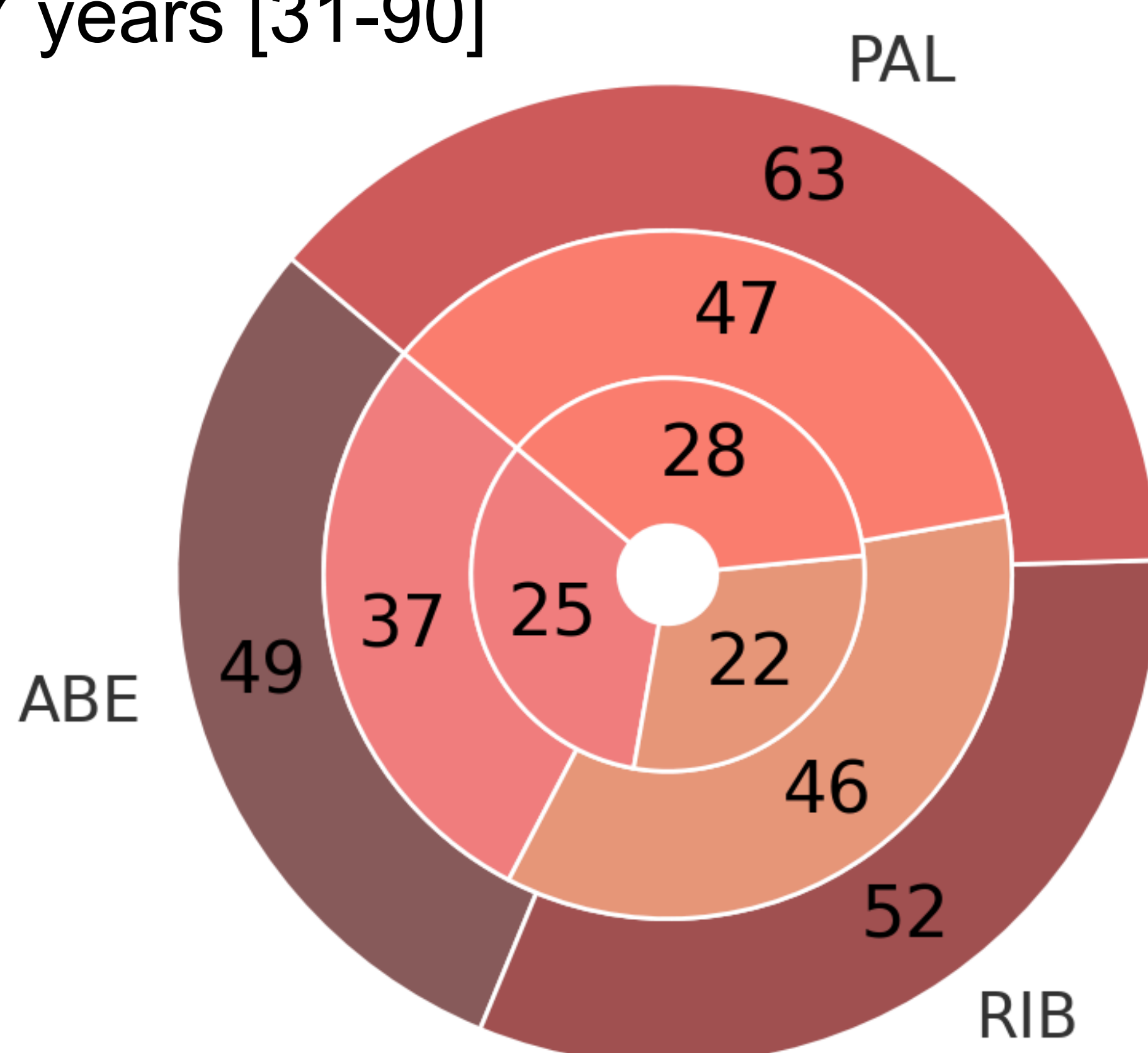
- Retrospective observational study (September 2017 to May 2024)
- Patients treated with CDK4/6 inhibitors for MBC
- Effectiveness was assessed by analyzing median progression-free survival (PFS) and overall survival (OS) using Kaplan-Meier analysis. Survival curves were compared with the log-rank test.

## Results

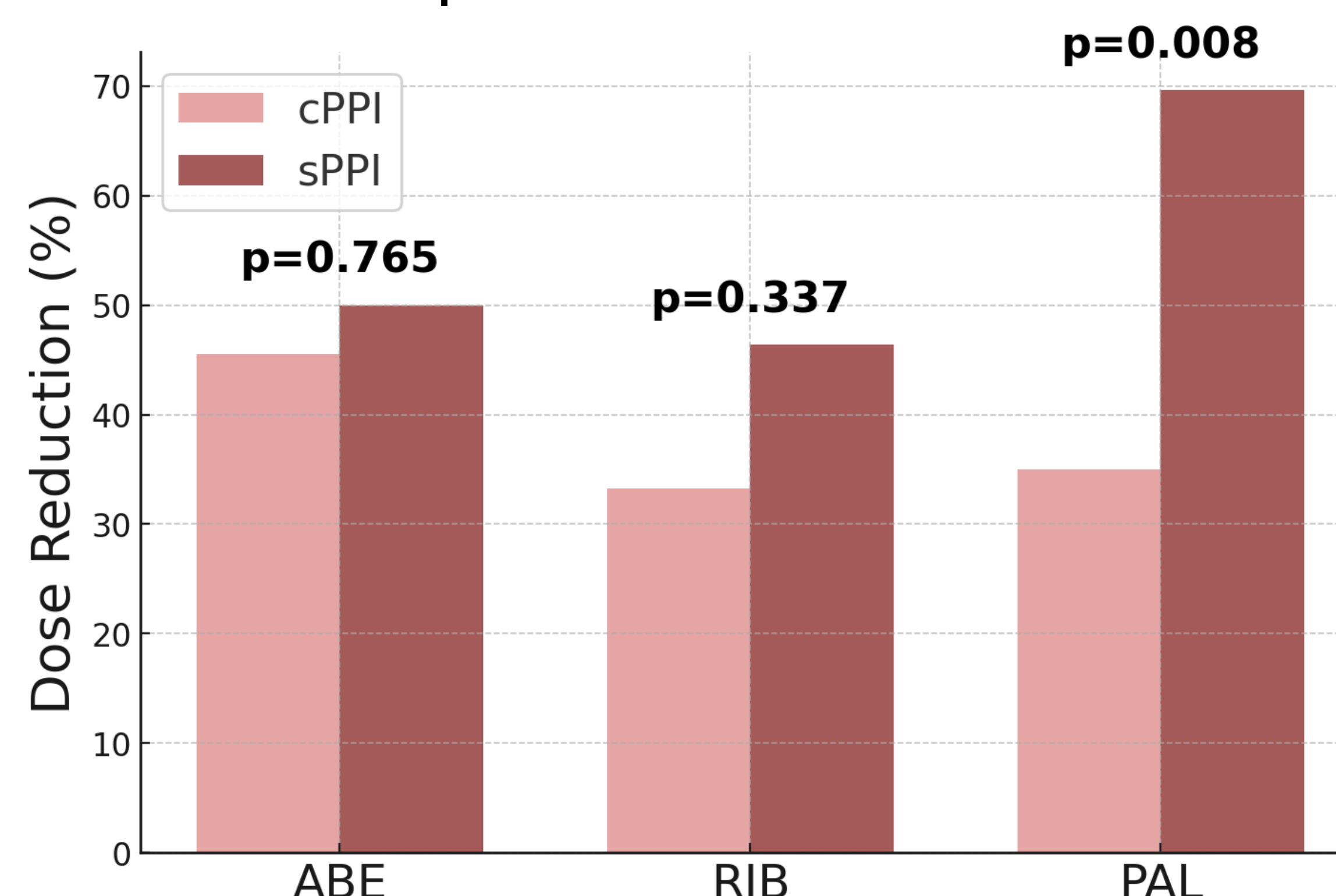


164 patients  
 Mean age 64.7 years [31-90]  
 100% female

The distribution of patients by treatment is shown, including the number of total patients, those treated in first-line, and those receiving cPPI:



Dose reduction rates were compared between cPPI and sPPI patients for each treatment:



Median PFS and OS were analyzed in first-line cPPI and sPPI patients across treatments:

	PFS cPPI (months)	PFS sPPI (months)	p-value	OS cPPI (months)	OS sPPI (months)	p-value
ABE	10.8	7.1	0.581	12.2	5.1	0.357
RIB	10.9	20.6	0.337	8.9	9.2	0.270
PAL	15.2	15.7	0.326	20.2	16.8	0.850

## Conclusion and Relevance

The results suggest that concomitant PPI and CDK4/6 inhibitors use does not significantly impact PFS or OS. However, cPPI patients on PAL required fewer dose reductions, possibly indicating lower drug concentrations. Further prospective studies with larger patient cohorts are needed to confirm these findings.

